

REMARKS

Claims 1 and 19 have been amended to characterize the vinylidene fluoride-based copolymer in terms of its VdF monomer content. This embodiment of the invention is described at page 5, line 35 to page 6, line 5 of the specification.

Entry of the amendment at this stage of prosecution is respectfully requested as placing the case in condition for allowance.

Review and reconsideration on the merits are requested.

Claims 1, 3, 4, 7-17 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,554,689 to Langstein et al. in view of U.S. Patent No. 4,057,566 to Carter et al. (Carter '566), U.S. Patent No. 4,100,136 to Carter et al. (Carter '136) or EP 0 527 008 A1 to Takago (EP '008). Further, claims 1, 3, 4, 7-17 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carter '566, Carter '136 or EP '008, in combination or alone in view of Langstein et al.

Applicants traverse, and respectfully request the Examiner to reconsider in view of the amendment to the claims, the Declaration under Rule 132 of Tatsuya Morikawa dated April 11, 2008 (of record) and the following remarks.

In paragraph 10 of the Office Action, the Examiner was of the view that at least some of Langstein et al.'s fluoropolymers will bear lateral double bonds at both terminals.

Applicants respectfully disagree.

Langstein et al. used potassium peroxodisulfate as an initiator in Example 1A. Langstein et al. also used potassium peroxodisulfate as an initiator and perfluorobutyl iodide as a chain transfer agent in Example 1B. Thus, Langstein et al.'s fluoropolymers exclusively bear at least one terminal derived from these compounds.

Namely, each of both the main chain termini in Langstein et al.'s fluoropolymers is not a carbon-carbon double bond.

In response to the Examiner's comment that the claims as presented in the Amendment filed April 30, 2008 did not exclude siloxane segment inside the fluoropolymer (A) (paragraph 11 of the Office Action), claims 1 and 19 have been amended to characterize the vinylidene fluoride-based copolymer in terms of its VdF monomer content. Because siloxane units have a different polymerization mechanism from VdF units, a siloxane polymer having the claimed VdF monomer content does not exist. That is, it is impossible to produce a siloxane polymer having the claimed VdF monomer content as claimed in amended claims 1 and 19. Therefore, amended claims 1 and 19 presented herein exclude the siloxane segment.

The Examiner did not consider the Rule 132 Declaration to be persuasive for the reason that the present claims do not call for maintaining a sheet formed after immersion in acetone. However, Langstein et al. was reproduced to demonstrate that the prior art does not meet other limitations of the present claims. That is, as set forth in the Declaration, the inability to maintain a sheet formed upon immersion in acetone is presumably due to insufficiency of the curing reaction (Declaration at pages 3-4) indicative of lack of curing site (e.g., a carbon-carbon double bond or Si-H group) at the polymer chain termini. Thus, the Declaration is on point because it shows that the polymer of Langstein et al. does not meet a characteristic feature of the fluoropolymer (A) of present claims 1 and 19, namely, that each of both the main chain termini is a carbon-carbon double bond or a Si-H group. Thus, Applicants respectfully request the Examiner to reconsider the Declaration of Tatsuya Morikawa in this context.

Applicants further incorporate by reference their remarks as set forth in the Amendment filed April 30, 2008. To summarize, the fluoroelastomer of Langstein et al. does not have

crosslinking functional groups at both ends of the polymer, and therefore does not disclose the fluoropolymer (A) of the composition of claim 19. Carter '566, Carter '136 and EP '088 only disclose a fluorocarbon siloxane polymer excluded by amendment from the scope of the claims presented herein.

As discussed at pages 7-8 of the Remarks portion of the Amendment filed April 30, 2008, in the case of a fluoroelastomer, providing crosslinking functional groups at both ends of the polymer is largely different from providing crosslinking functional groups in the middle of the chain as taught by Langstein et al. The Rule 132 Declaration noted above demonstrates that the cured material corresponding to Langstein et al. did not maintain a sheet formed after immersing an acetone indicative of a lack of a curing site at the polymer chain termini.

As to claim 1, there is no disclosure in Langstein et al. of the claimed methylene group-containing fluoropolymer (A) in which both the main chain termini is a carbon-carbon double bond. Rather, the fluoroelastomer of Langstein et al. has double bonds in the middle of the chain but not at either of the chain termini. Moreover, there is no disclosure or suggestion in Langstein et al. relating to the effect in connection with a fluoroelastomer having an olefinic double bond at a chain terminus. Therefore, even if the fluoroelastomer of Langstein et al. were used in the composition of Carter '566, Carter '136 and EP '088, the resulting combination would not achieve the invention of claim 1.

For the above reasons, it is respectfully submitted that the amended claims are patentable over the cited prior art, and withdrawal of the foregoing rejections under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1, 3, 4, 7-17 and 19 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

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